# Steps for Delivering a Non-federal Resource to Load Under the Load Following Contract

October 22, 2009



### Steps for Delivering a Mid-C Market Purchase to Load Under the Load Following Contract

- Step 1: BPA Power will establish sleeve with willing Mid-C participant and is committed to making the principles, including price, of this arrangement available to customers by January 1, 2010. Contract will be offered to customers interested in sleeving their Mid-C purchase. If a sleeve is not feasible, then skip to Step 6, sub-step 3.
- Step 2: Customer purchases WSPP Schedule C Mid-C market transaction with delivery to sleeving BA.
- Step 3: Each customer (or BPA Transmission acting as a customer's Long-term Reservation Agent) designates as a Network Resource each customer's portion of the sleeved purchase from above-mentioned BA in their BPA NT transmission contract and requests firm transmission.
- Step 4: If customer is served by transfer then a Transfer Service Support Agreement needs to be developed so BPA Power can take the additional steps of designating as a Network Resource each Transfer customer's portion of the sleeved purchase from abovementioned BA to our NT contract with the applicable Transfer BA (as applicable) and requesting firm transmission.
- Step 5: Allow for time to transpire so the necessary transmission processes may run their course in all of the applicable Balancing Authority Areas (BAAs) up to 90 days prior to service commencement. BPA Power will continue to evaluate the potential for firm transmission prior to the commencement of service so as to be prepared for Step 6.

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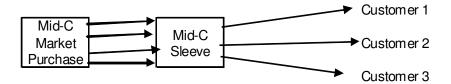


### Steps for Delivering a Mid-C Market Purchase to Load Under the RD Contract

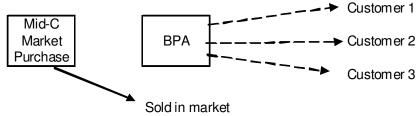
- Step 6: No later than 90 days before the year that deliveries are set to begin, BPA Power will assess the status the firm transmission request and if it has not yet been granted we will assess the need for the contingency plan of an exchange or the TRM 10.1 TAC approach.
  - 1. If firm transmission has been granted, the sleeved amounts will be scheduled to each customer on firm NT transmission. Either the customer (or some entity acting on its behalf) will submit a generation schedule to BPA Power so the E-tag can be created; or potentially, an aggregating group will submit a single, aggregate schedule to BPA Power (including the aMW amounts for each customer) and BPA Power's scheduling system will create the individual hourly generation schedules that will be used to create the E-tags based on a pro-rata share of the total.
  - 2. If firm transmission has *not* been granted but BPA Power determines the contingencies are not needed, the sleeved amounts will be scheduled to each customer on secondary NT transmission until firm NT transmission can be granted by all of the applicable BAAs. The TCMS feature of BPA Power's Transmission Scheduling Service will be utilized to supply either replacement transmission scheduling or replacement power if there is a congestion event on the contract path between the sleeving utility and the customer's load.
  - 3. If firm transmission has *not* been granted but BPA Power determines the contingencies are needed, the sleeved amounts will either be scheduled to the BPA BAA (or potentially used to serve BPA loads close to the generation source in the case of a generating resource) for an exchange of power or sold by the customer while the load is served at a TAC-like rate until firm NT transmission can be granted.
    - If we decide to do an exchange, contract language would need to be developed and added to each
      customer's RD contract establishing such an exchange. In situation where the potential for needing
      an exchange is high, BPA will begin working on the exchange option well in advance the 90 days
      determination.
    - Additionally, BPA Power would need to evaluate whether to use firm or secondary NT transmission.
       If firm transmission is used, the exchanged purchase would need to be added to the NT MOA with BPA Transmission.

### Illustrations of Different Scheduling Arrangements

#### Service through a Sleeve

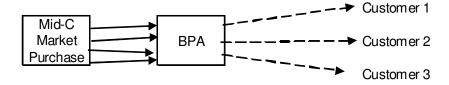


#### Service through a TAC: Customers market their Mid-C purchase\*



<sup>\*</sup> In some situations BPA may be able to purchase the Mid-C purchase from the customers

### Service with an exchange



Note: Solid arrows represent individual, hourly schedules.

Note: Dotted arrows represent BPA load service

For Regional Dialogue Discussion Purposes Only -- Pre-decisional



### Scenarios

- Scenario 1: An aggregating group sources a WSPP Schedule C market purchase of 10 aMW starting October 1, 2011. It needs to get 2.8 aMW of this power to one of its customers starting in 2012. The customer is served via a GTA agreement between BPA and Idaho Power.
- In this scenario, the steps outlined on Slide 2 and 3 above will be taken. If firm transmission cannot be obtained prior to July 3, 2011 (i.e., 90 days before power deliveries begin), then BPA Power will either provide service at the TAC-like charge or develop an exchange arrangement for the customer. In this instance BPA power will evaluate the potential for acquiring firm transmission well in advance of the 90 day determination date and begin developing the TAC or exchange options. This is because the availability of secondary transmission to this customer's load over La Grande is very limited and when available could face very frequent curtailments. This circumstance would lead BPA Power to conclude that the cost of TCMS would be onerous for the customer.
- Based on BPA Power calculations, we have observed 720 hours of annual average planned firm transmission outages over the last two years.
- Based on BPA Power calculations, have observed 15 days of unplanned firm transmission outages with at least one hour of curtailments over the last two years.
- These amounts are based on historical information and may not be an indication of future curtailment probability several years from now.
- BPA Power does not have information on historical curtailments of secondary NT transmission into Idaho over La Grande because we do not schedule on secondary NT there.



### Scenarios

- Scenario 2: An aggregating group sources a WSPP Schedule C market purchase of 10 aMW starting October 1, 2011. It needs to get 0.8 aMW of this power to a customer starting in 2013. This customer is served via an exchange agreement between BPA and PacifiCorp.
- In this scenario, BPA Power would skip to the exchange or TAC step because of the nature of our exchange agreement with PacifiCorp and the known transmission constraints between the Mid-C and Eastern Idaho.



### Scenarios

- Scenario 3: A customer is served via a GTA agreement between BPA and Avista. This customer has a small resource (2 aMW) that could potentially be developed in its service territory and therefore considered be a "behind the meter resource."
- This customer would work with BPA Power and Transmission Services to develop a plan of service for deliveries of this resource to load. Presuming that BPA Power can provide the support services when this resource is applied directly to this customer's load (instead of requiring the customer to schedule the resource to the BPA BAA to obtain such services), the customer would specify this resource in its PSC and elect the appropriate resource support services (DFS and FORS) plus the Resource Remarketing Service (RRS).
  - Electing this package of services ensures that this resource could be treated as a behind the meter resource applied to load as the resource generates. RRS would be needed for the first year of deliveries since the customer's above-RHWM load is 1.6 aMW and the resource produces 2 aMW of generation.
  - Alternatively, an arrangement between BPA Power, the customer and another Load Following customer could be crafted where in the two customers specify a share of that resource in their Power Sales contract but only one takes in the power and designates it in its NT Service Agreement.
- The customer with the resource in its territory will notify BPA Transmission of this new resource.
   The behind the meter resource will not require an ATC evaluation.
- BPA Power will serve the net load resulting from the application of this resource to the customer's load and charge the customer for DFS, FORS, Resource Shaping charges/credits, and RRS credits.



### Power Service's Transmission Scheduling Service illustration of the linkage between resource to load for a group of aggregated customers, version 1

Aggregate customer Above-RHWM load = 10 aMW

Aggregator acquires two resources to meet all 10 aMW of load with an additional 0.4 aMW receiving RRS from BPA

### Generator A: 2 aMW annual purchase from an identified generator.

The purchase is allocated and added to only one customer's NT Service Agreement. This customer is located the closest to the resource, therefore doing this saves on PTP transmission costs and administrative scheduling costs for the group of customers relative to having an amount of the resource scheduled to each aggregated customer.

Since it is a resource greater than 1 MW nameplate and applied to load as it generates, the customer will have to purchase RSS (DFS, FORS, if necessary, & RRS) from BPA. The customer will supply preschedule and real-time generation schedules to BPA Power so it can create the E-tag.

### Generator B: 8.4 aMW WSPP Schedule C Mid-C market purchase with a sleeve provided by sleeving utility

Since the source of the purchase is unknown, it does not qualify as a Network Resource under the customer's NT Transmission contract. The resource will need to be sleeved through another BAA, or exchanged with BPA Power.

BPA Power will schedule the Secondary (non-firm) NT service from the sleeving utility to the customers' loads on their behalf if Firm NT service is not available prior to the service commencement date.

The aggregation of utilities or their aggregator will need to sign the sleeve agreement and provide the sleeving utility with the information required by the sleeve agreement.

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Illustration of the linkage between resource to load

| Resource MW                                                                 | Customer      | aMW<br>above<br>RHWM | aMW<br>Amount<br>Scheduled              |
|-----------------------------------------------------------------------------|---------------|----------------------|-----------------------------------------|
|                                                                             | C1 (Transfer) | 1.6                  | 2                                       |
| Gen A 2 MW delivered directly to load (delivered to closest loads first 1/) | , C2          | 0.4                  | 0.4                                     |
|                                                                             | C3            | 0.5                  | 0.5                                     |
|                                                                             | C4            | 1.5                  | 1.5                                     |
|                                                                             | C5            | 1                    | 1                                       |
| Gen B 8.4 MW delivered on Secondary (non-Firm) NT until Firm NT is provided | C6 (Transfer) | 2                    | 2                                       |
|                                                                             | → C7          | 1                    | 1                                       |
|                                                                             | C8 (Transfer) | 0.5                  | 0.5                                     |
|                                                                             | C9 (Transfer) | 0.5                  | 0.5                                     |
|                                                                             | <u>C10</u>    | <u>1</u>             | <u>1</u>                                |
|                                                                             | Total         | 10 aMW               | 10.4<br>0.4 aMW<br>remarketed<br>by BPA |



## Power Service's Transmission Scheduling Service illustration of the linkage between resource to load for a group of aggregated customers, version 2

Aggregate customer Above-RHWM load = 10 aMW

Aggregator acquires two resources to meet all 10 aMW of load with an additional agreement between BPA and several customers

### Generator A: 2 aMW annual purchase from an identified generator.

The purchase is allocated and added to only one customer's NT Service Agreement. This customer is located the closest to the resource, therefore doing this saves on transmission costs and the administrative scheduling costs for the group of customers relative to having an amount of the resource scheduled to each aggregated customer.

Since it is a resource greater than 1 MW nameplate and applied to load as it generates, the customers will have to purchase RSS (DFS and FORS, if necessary) from BPA. The customer will supply preschedule and real-time generation schedules to BPA Power so it can create the E-tag.

### Generator B: 8 aMW WSPP Schedule C Mid-C market purchase with a sleeve provided by a sleeving utility

Since the source of the purchase is unknown, it does not qualify as a Network Resource under the customer's NT Service Agreement. The resource will need to be sleeved through another BAA, or exchanged with BPA Power. BPA Power will schedule the Secondary (non-firm) NT service from the sleeving utility to the customers' loads on their behalf if Firm NT service is not available prior to the service commencement date.

The aggregation of utilities or their aggregator will need to sign the sleeve agreement and provide the sleeving utility with the information required by the sleeve agreement.

Illustration of the linkage between resource to load

aMW

aMW

| Resource MW                                     | Customer      | above<br>RHWM      | Amount<br>Scheduled |
|-------------------------------------------------|---------------|--------------------|---------------------|
|                                                 | C1 (Transfer) | 1.6                | 2                   |
| Gen A 2 MW ——————————————————————————————————   | → C2          | 0.4                | 0                   |
| where resource is located)                      | C3            | 0.5                | 0.5                 |
|                                                 | C4            | 1.5                | 1.5                 |
|                                                 | —→ C5         | 1                  | 1                   |
| Gen B 8 MW delivered on Secondary (non-Firm) NT | C6 (Transfer) | 2                  | 2                   |
| until Firm NT is provided                       | <b>→</b> C7   | 1                  | 1                   |
|                                                 | C8 (Transfer) | 0.5                | 0.5                 |
|                                                 | C9 (Transfer) | 0.5                | 0.5                 |
|                                                 | C10<br>Total  | <u>1</u><br>10 aMW | <u>1</u><br>10 aMW  |



### **Additional Considerations**

- What charges would apply under a Sleeve, TAC-like, and Exchange Arrangement?
  - Sleeve Arrangement. We have yet to negotiate the Sleeve. With less megawatts it would cost more and with more megawatts it would cost less. We may be limited on the number of tags the sleeving entity will allow coming in and going out based on the price we negotiate. We need to have more conversations with potential counter parties to see if one would be willing to add additional firming features to this sleeve, and if so at what cost.
  - TAC-like Arrangement. BPA does not know at this time the rate structure that will respond to the direction provided by section 10.1 of the TRM and its expanded use for occasions when firm transmission has not been granted for a customer's non-Federal resource in time for deliveries. The GRSPs developed in the applicable 7(i) Process will establish the terms and conditions for application of these rates. These rates are intended to reflect the costs associated with the power and services needed to serve such load. For clarification, we have included excerpts (with a several modifications) from the WP-10 Wholesale Power Rates Development Study (pp. 27-28) to give you a sense of how we have structured the TAC adjustment to the PF rate to date, in addition to some issues we will need to resolve for the TAC application in a tiered power rate construct.

"The provision for a TAC has typically been included in BPA's power rate schedule to recover the cost of power purchases, if any, that BPA must undertake to serve unexpected incremental load. The TAC is intended to recover the incremental costs incurred and is not otherwise included in Power Services revenue requirement for FY 2010-2011....
[In the case of a TAC-like charge per 10.1 of the TRM, the previous section should not be understood to

In the case of a TAC-like charge per 10.1 of the TRM, the previous section should not be understood to suggest how we would charge customers in the future; while BPA would seek to not recover more revenue as a result, we could be charging a TAC to purchasers for "Tier 2" activity and crediting it to "Tier 1". The presence or absence of surplus power means that we need to be careful not to create cost shifts between Tier 2 and Tier 1.]

### Additional Considerations, continued.

- What charges would apply under a Sleeve, TAC-like, and Exchange Arrangement?
  - TAC-like Arrangement, continued.

... The TAC would be calculated in response to an individual customer's request and would be determined based on the amount of power available to serve incremental requests from monthly Federal system surplus using critical water conditions, excluding balancing purchases and purchases for System Augmentation included in the resources used to set power rates for the period. This determination will use the monthly available Federal firm system energy that can be used to serve this load. To the extent there is available Federal firm system energy in any 3 month(s), it would be used to serve the TAC load for that month.

If sufficient Federal firm system power is available to serve the incremental load, such power shall be sold at a PF rate or a NR rate. In the event sufficient Federal firm system power is not available and BPA must acquire additional power to meet the incremental load, such additional power shall be sold at a PF rate or a NR rate, plus a TAC reflecting the difference between the PF rate or NR rate and BPA's cost to supply this power."

Exchange Arrangement. BPA Power has not begun to contemplate what costs might need
to be recovered from participants in an exchange. They would likely be fact-specific and
pertain to the type and amount of resource or purchase we are exchanging.



### Additional Considerations, continued.

- How do the scenarios compare to the utility taking Tier 2 service from BPA Power (assume they
  elect the Short-term rate on Nov. 1, 2009)?
  - ☐ In Scenario 1, we examined a customer which had an above-RHWM load of 2.8 aMW in 2012.
  - ☐ In Scenario 2, we examined a customer which had an above-RHWM load of 0.8 aMW in 2013.
  - ☐ In Scenario 3, we examined a customer which had an above-RHWM load of 1.6 aMW in 2012.
  - For Scenarios 1 and 4, the customers would be charged for a flat block of Tier 2 Short-term service based on their above-RHWM load amounts.
  - For Scenarios 2, the customer would not be charged at the Short-term rate until their above-RHWM load amounts are set to be greater than 8,760 MWh. In the interim, this customer would be served at the Load Shaping rates.
  - As far as transmission considerations, whether serving NT customers at Tier 2 rates or at Load Shaping rates, BPA Power will add resources to its NT MOA as necessary to obtain firm NT transmission and will face the same process as faced by NT utility customers. The transfer providers will plan transmission to serve the customers served by transfer based on the PSC they have with BPA Power. BPA Power will schedule Federal power to these customers using whatever means necessary.

### Final Thoughts...

- In summary, we collectively have made significant progress on addressing customer concerns regarding the combined Load Following contract rules and transmission service processes for applying non-Federal resources to load under the Regional Dialogue power sales contract.
- We have all learned a lot during this effort... and will collectively continue to learn more as
  resources are developed, transmission is built, the electricity market continues its evolution, and
  new regulatory obligations are required to be met by the region.
- The package we have presented today should give Load Following customers confidence that we have a path forward for you (if not several) that a) is intended to avoid unnecessarily onerous costs and penalties you might otherwise face; and b) put you on as level a playing field as we can compared to service at Tier 2 rates, if you choose to pursue:
  - 1) a WSPP Schedule C market purchase;
  - 2) a generating resource of a kind BPA Power would have pursued; or
  - 3) a combination of the two.
- We still have work to do to make this a reality. BPA Power and Transmission staff is ready to roll up their sleeves and work with you to get us there. Some of the work that needs to be done includes: working out a sleeve arrangement with a willing counter party (including contract terms and price), developing the TAC-like charge, establishing criteria for when a TAC-like arrangement versus an exchange is appropriate, and developing plans of service for your generating resources (if you go that route).